**1.4**

**Identify Zeros and End Behavior and Graphing**

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period \_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_

Without using technology, sketch each polynomial. (Hint: Identify the zeros, their multiplicity, determine whether they touch or cross the x-axis at each zero and describe their end behavior)



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| --- | --- | --- |
| Zeros | Multiplicity | Touch/Cross |
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2.

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| Zeros | Multiplicity | Touch/Cross |
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3.

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| Zeros | Multiplicity | Touch/Cross |
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4.



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| Zeros | Multiplicity | Touch/Cross |
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5.

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| Zeros | Multiplicity | Touch/Cross |
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6.

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| Zeros | Multiplicity | Touch/Cross |
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7.



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| Zeros | Multiplicity | Touch/Cross |
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8.

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| Zeros | Multiplicity | Touch/Cross |
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9.

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| Zeros | Multiplicity | Touch/Cross |
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10.

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| Zeros | Multiplicity | Touch/Cross |
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11.

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| Zeros | Multiplicity | Touch/Cross |
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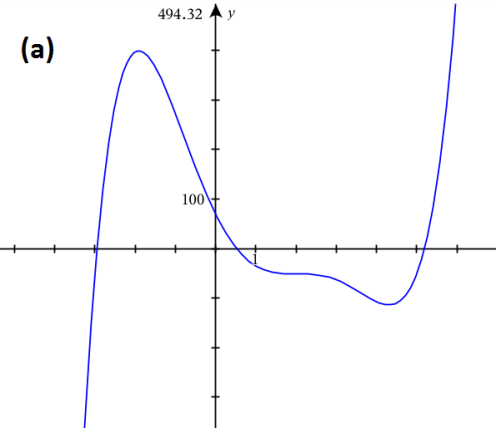
12.

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| --- | --- | --- |
| Zeros | Multiplicity | Touch/Cross |
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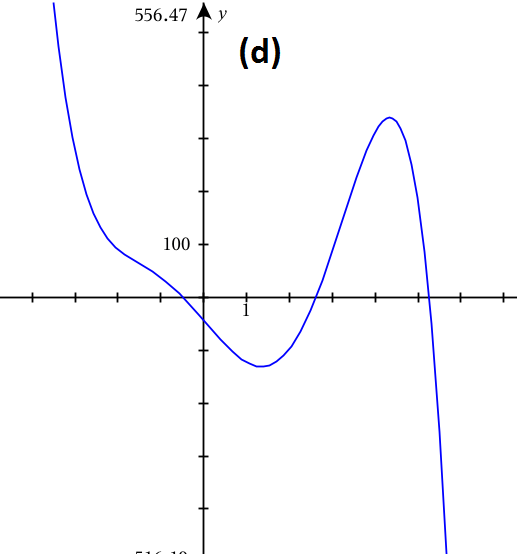
13.

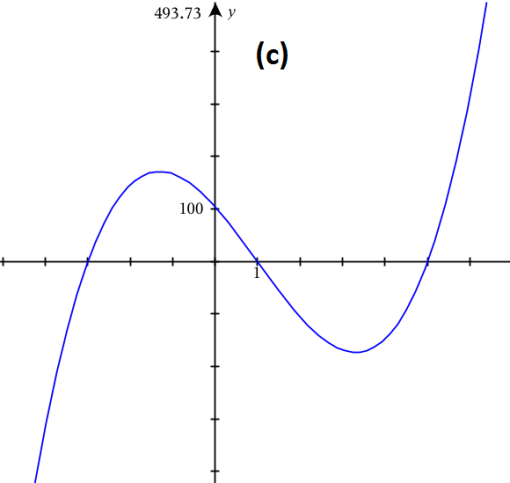
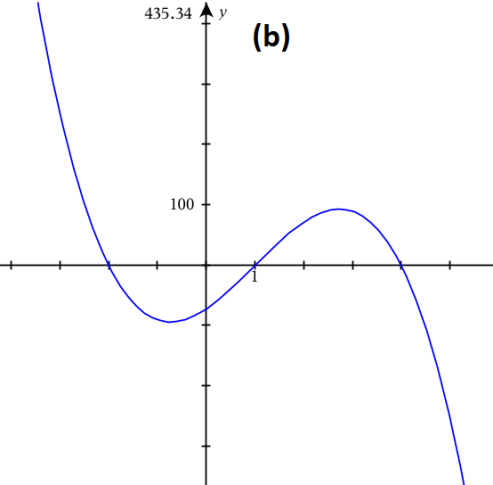
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| Zeros | Multiplicity | Touch/Cross |
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**Match the polynomial function with its graph (without a graphing calculator!). Explain your choice.**









**Use technology** to graph the polynomial. Identify the zeros, their multiplicity, determine whether they touch or cross the x-axis at each zero and determine the end behaviors.

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| Zeros | Multiplicity | Touch/Cross |
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18.

19.

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| Zeros | Multiplicity | Touch/Cross |
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